

# Aviation News

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DEC. 23, 1946



**Prepping the Pioneer:** Northrop Aircraft's tri-motor Pioneer, especially designed for cargo operations into and from short runways, is being groomed for its first flight at Hawthorne, Calif. With a five-ton useful load, the Pioneer is claimed to take off in 700 ft. It can use a 2,000-ft. runway and comply with CAA regulations regarding take-off with one engine dead.

## **Lightplane Dollar Volume Steady, AIA Figures Show**

November delivery was 2,763 at \$8,055,000; Oct. was 3,745 at \$8,751,000.....Page 7

## **Type Competition Limited by Model 417 Withdrawal**

Boeing's suspension of feederliner narrows field to Northrop and Beech.....Page 15

## **Claim Certificated Lines Unfit for Cargo Business**

California Eastern challenges scheduled carriers' record in route bid.....Page 20

## **Airline 'Insiders' Sell Heavily, SEC Report Shows**

Most selling took place before abrupt decline of markets in recent months.....Page 22

## **Big Sales Campaign Indicated at ADMA Convention**

Members and speakers at Chicago meeting show aggressive attitude.....Page 24

## **Post Office Expands 'Copter Mail Tests at New York**

Most ambitious trials to date will cover 12,500,000 population area; begin Jan. 6.....Page 29



Douglas Aircraft Company specifications for the 3000 psi hydraulic system of the DC-6 include the Vickers units shown here.

In the main hydraulic system, the Vickers engine-driven Constant Displacement Type Pumps have exceptionally long life, low weight per horsepower, and very high volumetric and overall efficiencies. The Vickers 75% Accumulator causes no power safety because of their tapered distribution, added important features are large capacity and light weight. The Vickers Motors pump serves as an additional hydraulic power source in emergencies enabling the pilot to give undivided attention to flight maneuvers.

The main power distribution system uses Vickers Variable Volume Piston Type Pumps which automatically deliver the power and speed variations required to maintain the desired climb, cruise, and descent independent of varying altitude and engine speed. The Vickers Hydraulic Motors have high starting and running torque. The very low inertia of their moving parts permits instantaneous starting, stopping and changing in running speed. They also have exceptionally low weight per horsepower, and are free from roller interferences.

Vickers Bulletin 46-61 gives additional data about the most complete line of 3000 psi hydraulic equipment for aircraft. Write for a copy.

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## THE AVIATION NEWS

# Washington Observer



**WAR ASSETS SUPERPLANE**—It's not generally known, but the principal owner of the monster flying boat now being studied for use by the Hughes Aircraft Co. is War Assets Administration. The old Detman Plans Corp. put up about \$15,000,000 to build it, Howard Hughes about \$2,000,000. WAA inherited DFC's interest and locked in another \$1,500,000 to move and flight test the craft on the basis that after the Government had put so much money into the project it might just as well see it through "with the chance that the Government will benefit by the information accumulated in the flight tests." WAA expects to take possession of the flying boat some day and hopes a buyer can be found.

**CITIES' LAST STAND**—Surprisingly and unexpectedly, President Truman asked to see the revised Airport Regulations, just as CAA was preparing to make them public. Although no explanation was given for the request, it is recalled that a delegation of big city airports called on the President during hearings on the regulations to prompt the CAA to make them public. The Government's 50 percent share in construction cost on a project to the first \$2,000,000. Even while CAA was revising the regulations, it stated that the conventional formula would not be changed materially. Observers surmise that the President wanted to examine the regulations with the airport complaints in mind.

**ATOMIC DIFFICULTIES**—Dr. Lein W. Alvarez's speech last week on atomic energy for aircraft propulsion (see page 14) almost wasn't delivered. The Army finally cleared it at three o'clock the afternoon of the day it was to be given after a run-around-the-very-same that had sponsored of the dinner, at which Alvarez appeared, dirty. At one point, the Army, reluctant to make any decision on the speech, asked the matter to Bernard Baruch, U. S. delegate on the UN Atomic Energy Commission. Baruch, after hearing it down, changed his mind and gave an okay and then, a few days later, the Army again balked before finally acquiescing.

**CONTROL CHANGES DIM**—At this early date chance appears to be that the new Republican Congress will not give the Civil Aeronautics Board legislation it has requested for control over international airline routes similar to that now exercised over domestic routes. CAB considers the authority

essential to effective regulation of international air transport, and without it will have to keep along on the negative aspect it has in the international rate field through its power to approve or disapprove agreements among the airlines.

**VFW FOR AIR FORCE**—Advocacy by the Veterans of Foreign Wars of a strong air force at the first consideration of national security after a new and significant indication of overseas aggression during, VFW commander-in-chief Louis E. Storr, in presenting the group's views to the White House, wrote, "Our veterans have learned that the commanding lesson of World War II was the advent of air power as the greatest striking force known. Consequently, our organization is pledged to national security in the form of the most powerful air force in the world, capable of rapid expansion, and a number of professional modern divisions ready to be transported as an air army anywhere."

**GOP TO CAB**—GOP National Committee Chairman B. Carroll Reece is advocating Republican control of the five-member Civil Aeronautics Board and other bipartisan quasi-judicial agencies. Reece suggests that if these agencies are GOP-controlled, opposition between them and the new Congress on legislation and appointments will be made easier. Reece's proposal would mean that the CAB chairmanship would be transferred from James M. Landt, a Democrat, to a Republican, and that other lands as one of the two other Democratic members of the Board—Josh Lee and Harlow Branch—would make no call. Only time can tell whether the GOP will be able to exert enough pressure to force Administration to swallow the proposal.

**FREDERICK REPORT**—With no position on key controversial issues, Dr. John Frederick's transportation report to House Interstate and Foreign Commerce Committee is understood to be little more than a routine of the legislative recommendations to the Committee by various transportation interests. If approved by the Committee members, in whom it was submitted last week, the document will be filed as a Committee report. Rep. Charles Wadsworth, New Jersey Republican who will take over the chairmanship of Interstate next year, has not committed himself yet to chairman Clarence Lea's plan to use the report as a basis for drawing up overall transportation legislation in the new Congress.



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# SCANDINAVIAN

## AIRLINES SYSTEM

## Lightplane Dollar Volume Steady Despite November Delivery Slump

Eleven manufacturers delivered 2,765 planes valued at \$8,055,000; trend toward multi-place planes seen

By WILLIAM KROGER

The lightplane industry concedes that a falling-off in sales had taken place in November, but for weeks waddling its extent, but week last figured in study at the Aircraft Industries Association released the November delivery report. Deliveries were down more than 900 planes but the picture has a bright side.

In November 11 companies delivered 2,765 planes valued at \$8,055,000. In October those same 11 companies delivered 3,745 planes but the value was \$6,311,400. While the industry was selling fewer planes in November, the figures indicate that they were selling a greater ratio of three- and four-place aircraft which carry a higher price tag.

**Three Makers**—Three companies are not listed in AIA's November tabulation, although they were included in the October statistics. They are Engineering & Research Corp. (Hingham), Globe and Texas Engineering, which has been manufacturing both Fairchild and Globe models, including those companies 14 manufacturers in October delivered 4,884 planes valued at \$11,254,900.

Backlash at the statistics of the 14 companies was the part of the industry's total activity in October. The figure for the 11 companies reporting in November gave a fair index to the overall state of the lightplane industry last month. Largest producer among the three companies missing in the November listing was ERICO which delivered 245 planes in October, but which discontinued production temporarily early in November. Globe and Texas Engineering between them produced 272 planes in October.

Analyzed, the November figures do not justify the gloomy outlook

expressed by numerous observers during the National Aircraft Show at Cleveland. For one thing, it is encouraging to report in sales of larger personal type planes that seems to be evidenced by the AIA report. This is taken to indicate two important factors:

1) The industry is reaching the turbo market, which many authorities have long claimed it has to do to attain volume. 2) The industry's immediate future is not necessarily limited to sales of two-place planes in schools, which up to now have constituted the greatest market because of the veterans' training program.

**Leaders Lose**—The largest losses in sales were experienced by the October leaders, Piper, Aeromac

and Cessna, with Taylorcraft, another volume producer, completely out in the month after delivering only 65 planes. These four manufacturers together sold 1,154 planes last in November, of a total drop of 1,819 planes suffered by all 14 companies reporting in October. Piper and Aeromac, the two leaders, both have planes larger than two-place now in production.

Some of the other companies showed gains, some small, some substantial in November, over October, again pointing to the fact that the halibut slump in the lightplane market has been to some extent, at least, over-cured.

The company-by-company breakdown of the October and November figures follows, with November deliveries and values listed first, followed by those for October:

Aeromac: 715, \$1,270,000; 1,008, \$1,269,000; Beech: 24, \$1,297,669; 21, \$1,309,600; Cessna: 55, \$335,883; 76, \$330,068; Cessna: 348, \$45, \$1,251,000; 638, \$1,423,000; Fairchild: 18, \$97,000; 30, \$111,000; Lancaster: 215, \$127,000; 163,



### FOR LOW COST TRANSPORTATION:

Russian Aircraft Corp., Hartford, Conn., have announced what is claimed to be the first low cost helicopter with adequate payload now being developed. A 3-place machine, the R-25A is expected to fill warehouse, executive, commercial and governmental uses. Model shows is equipped with retractable landing gear. Unarmed in helicopter is still assembly with slatons. According to C. H. Kewen, president of company, test flights will be made soon following completion of exhaust tests of Russian developed rotor system.



## Supersonic Theory Developed in Speech

Dr. Theodore von Kármán fills desks in an aerodynamic theory in 10th Annual Wright Brothers Lecture.

A serious gap in aerodynamic theory for transonic and supersonic flow was filled by Dr. Theodore von Kármán last week in his 10th Annual Wright Brothers Lecture before the Institute of the Aeronautical Sciences. Bringing existing, but heretofore fragmentary approaches to the problem, into a definite pattern and summarizing them by his own recent studies, von Kármán proved the way for interested supersonic research and the application of research findings to airplane design.

He pointed up sharply the basic difference between subsonic and supersonic flow theories and emphasized the still undeveloped theory regarding what occurs in the transonic speed range. He admitted experimental research still produced the most reliable data. He stressed the growing importance of the boundary layer as a controlling element in supersonic flow and presented new theoretical approaches to the interaction of the boundary layer and shock waves.

Of particular significance was his new analysis of supersonic drag as an actual problem solvable by relying upon the knowledge of aerodynamic physics. Generally, he compared supersonic drag in the context of a series of oscillatory-pulsating in unison for straight wings and in sequence for wings swept either backward or forward. The sound emitted by these oscillations is similar to the nature and energy of shock waves.

He laid great stress on the growing importance of the heat-energy created by shock waves and introduced new evidence that a shock number of about 4 is the maximum theoretically attainable before the flow is entirely destroyed by the heating action. Cooling methods, he said, deserve immediate extensive study.

An entirely new drag theory was introduced by von Kármán involving a concept of the airfoil and the surrounding air as a single quantity rather than as separate quantities as heretofore. By analysis of the momentum changes of this quantity, rather than simple thrust-reaction as now used, he emphasized the importance of a large area surrounding a supersonic airplane.

Turning to practical considerations of guided supersonic missiles, von Kármán revealed that the modern fighters offered resistance with ranges of about 3,000 miles capable of lifting about the same weight as wing sections now in use on airplane aircraft. He believes the only promise of extensive range lies in the use of very large bodies with very small wings and pointed out the importance in fast development of emphasizing low specific volume rather than light weight.

## Atomic Aircraft Deemed Unnecessary

Alvarez predicts no noticeable advantage over conventional planes; less difficulties of rocket application.

While it is technically feasible now to use atomic power for aircraft propulsion, the airplane would have to be as big—three or four times heavier than the 275,000-lb B-36—that such a development will not occur within ten years, Dr. Luis Alvarez, Robert J. Collier Trophy winner last week, told the Aero Club of Washington.

He added that it is highly improbable that anyone will bother to build an atomic powered plane for it would seem at the moment to have no noticeable advantage over a conventional type. He promptly hedged by declaring that "I will probably be ashamed to read this prediction 30 years from now, but that is the estimate of the situation I can make at this time."

**Hydrogen Rockets**—Alvarez, a consultant on the Manhattan atomic bomb project and still engaged in atomic investigations, devoted the bulk of a highly-revealing speech to the possible use of atomic power for rockets. The introduction of atomic fusion is so great—"lumpen fragments" moved 1,800 times faster than the bulk chemical jets—that the friction of the rocket passing at that speed through the atmosphere would vaporize the rocket.

The only method of using atomic energy in rockets that appears promising to Alvarez is to use atomic heated hydrogen as the propellant of the rocket. This would give jet velocity about twice as great as an alcohol-oxygen fuel such as used in the engine of the XS-1. One major problem in this method is obtaining enough hydrogen to fill a tank about 18 ft in diameter and 60 ft long, or about enough to fill an Alouette dirigible. And it would all be expended in 100 seconds.



**FRENCH ARROW JET:**

Aeronautics Research's VG-59 (Arrow) jets, Dec. 1), arrow-shaped jet-propelled plane which was shown at the Paris exhibition. The wings are swept back at an angle of 35 degrees. Powered by a Jumo 004 German-engine, the VG 59 has a span of 27 ft, length of 31 ft, and weight of 9,000 lb. The plane, which has not yet flown, is shown under construction. (Associated-Press World News photo)



**PRECISION PRODUCTS  
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Keeping tabs on a red-hot turbine best describes the activities of these G-E engineers. They're checking an instrument panel in the pressurized chamber of a B-39, G-E's Flying Laboratory. The instruments are connected to various parts of a gas turbine, the TG-101, which has been installed in a bomb bay of the giant plane. In this manner, accurate records can be kept of actual flight performance of this G-E development, and adjustments made without danger to personnel.

Center of this development work is the G-E Flight-test Division which was recently dedicated at Schenectady. Besides the huge hanger, there are offices

for engineers, a workshop where parts are made, and space for development work on all types of air borne equipment. Here, work began under the auspices of war years but not slackened on equipment useful in commercial aviation. Here, too, problems connected with new planes of all types can be studied and equipment flight tested. Remember, General Electric is working on electric power systems (a-c and d-c), aircraft instruments, gas turbines, and many other devices. Perhaps we have the answers to your electrical problems. Our engineers will be glad to discuss them with you. Apparatus Dept., General Electric Company, Schenectady 5, N. Y.

**GENERAL ELECTRIC**

**Proton Uranium** — Another problem would be in the field of technology to develop a process to separate uranium from the hydrogen gas to be fed in order to be heated.

Alvares recently built up and then knocked down various methods of utilizing atomic power and, although putting forth his best hydrogen theory as the best bet, added that "there is no obvious or simple way in which to use atomic energy for space ships. If you read in the papers some years hence that an atomic-powered rocket has been sent to the moon, you can at least be sure that its designers chose atomic power only after many misgivings, and that the decision was based not on the effectiveness of that new energy source, but only after the realization that it was fantastically difficult or expensive to do the job with chemical propellants."

#### Senator Bailey Dead; Was Senate Air Leader

Sen. Joseph Bailey (D., N. C.), 73, who, as chairman of the Senate Commerce Committee, figured as one of the top aviation figures in Capitol Hill, died unexpectedly last week of cerebral hemorrhage.

During the past two years, Bailey had backed the Administration's regulatory competition aviation for international aviation and blocked the move in his Committee to establish "jet-set, extrajurisdictional" type operation. He was critical, however, of the "five freedoms" policy being carried forward by the Administration in bilateral executive agreements, and voted in favor of a Commerce Committee protest resolution declaring the agreements "illegal" and "unconstitutional." Bailey supported the 1948 Airport Development Act.

#### United Asks Release From Arcata Contract

United Air Lines, operator of the landing area experimental station at Arcata, Calif. (AVIATION NEWS, Oct. 7), has requested to be released from its Arcata contract by the Navy's Bureau of Aeronautics. The contract was to run until July 1, 1947.

Reason given for the move was AFL Building Trades Union's statement that its negotiators were

not entered into immediately for a closed shop agreement at Arcata, every construction project in United's system would be struck. With Arcata's big issues at an end and United supposedly operating the station on a non-profit basis, it appeared logical that continuation of the Navy contract was not worth the price. Although New York, Los Angeles and Cleveland have reportedly shown active interest in establishment of the improved landing system as tested at Arcata, United's part in the development could easily be transferred to a less vulnerable contractor.

#### All-Metal Streak Developed by Group

Described as "the most advanced type of two-place personal airplane in the world," The Streak all-metal tandem plane developed by Aero-Flight Aircraft Corp., Buffalo, N. Y., has many interesting design features.

Although powered with only an 85-hp Continental engine, the experimental prototype has estimated top speed of over 170 mph, and estimated cruising speed of more than 160 mph, with a maximum range of 700 miles with fuel consumption of about 30 air miles to the gallon of 130 octane automobile-type gasoline.

All-Metal—Of all-metal construction, including control surfaces, The Streak uses a wing designed for good stall characteristics achieved by coordinated selection of airfoil sections, taper and thickness without use of wing-folding devices such as wingtip slots

and highly cambered top surfaces. Airframe maintain control into the stall. Wing is designed to eliminate any rolling tendencies, and to give ample stall indication by stalling first at the wing-root.

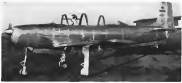
Bubble-type canopy is designed from wing aileron sections, for substantial elimination of drag. Bulkhead of the plane is described as high, so that variation in center of gravity is unimportant, and the plane may be flown from front to rear seat by one pilot.

All exposed surfaces are faired-over. For further elimination of drag, wing and tail surfaces are full cantilever construction. Fuselage is semi-monocoque with minimum number of bulkheads and longons, for simplification of construction and weight-saving.

Dual Controls—Dual conventional controls are supplied. Steady and equipment will include starter, contact light instruments, and fixed pitch propeller. Tropicde landing gear is fixed, retractable.

As the product of a group of engineers and shop personnel who worked on high speed military aircraft during the war, The Streak will be watched with interest in the industry. Its designers claim that they have achieved this performance at an sacrifice in landing speed by efficient aerodynamics and structural detail.

The first personal-type plane, winged maximum trainers, to be designed in tandem arrangement in recent years, The Streak will be an interesting test of the new generally accepted theory that public demand must prefer side-by-side two-place seating arrangement.



**Tandem Streak:** Prototype of The Streak, two-place tandem all-metal high performance biplane, powered by new 85-hp engine at Buffalo, N. Y. 1. Biplane airport built by Aero-Flight Corp., association of former military plane designers and shop personnel, the 85 hp plane is credited with top speed of over 170 mph and cruising speed over 160 mph, with estimated range of 700 miles.

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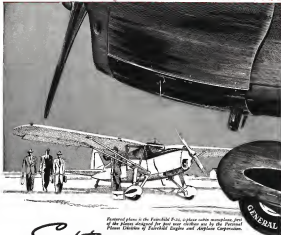
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## PRODUCTION

### Boeing Withdrawal of Model 417 Narrows Feeder Plane Competition

Company influenced by lowered mileage authorized lines by CAB; Beech and Northrop continue work on new planes for market.

Boeing Aircraft's suspension of plans to produce its Model 417 26-passenger feederliner leaves two companies still pressing work on planes for this type of service. Beech, with its four-engine Model 34, and Northrop with its trimotor, high-wing Pioneer.

Feeder operators nevertheless are disappointed over Boeing's withdrawal, not because of any expressed preference for the Model 417, but because the action limits the competition, and because they believe the move substantiates Boeing's decision are unduly pessimistic and may affect the financing of others in the manufacturing industry.

Both Northrop and Beech probably will remain in the feeder picture. Northrop's Pioneer is practically guaranteed by TWA and as long as that carrier's interest remains high, production of the plane can be expected. Beech expects to have the first Model 34 flying by February or March.

**Special Design**—John P. Galt, vice-president and general manager of Beech, told Aviation News, "We designed a plane especially for the feederline operator." He said the company expected that neither they nor anyone else could enter the field with "just another transport airplane." To the comment that Beech was one of the two firms remaining in the feeder production field, Galt replied, "We were the first to get in."

The Model 34 is being built especially to get in and out of small fields, also a feature of the Pioneer that is attractive to feeder operators. But the passenger capacity of the Pioneer—30—35—is deemed to be too large for most feeders. The ideal capacity, most operators feel, is about 20, the number of seats planned for the Beech.

Engineering and preliminary

testing of Boeing's Model 417 had begun at the Wichita plant when the decision was reached to forego production at least for the time being. This is the same step taken by Lockheed last summer in regard to its Boeing. Both companies state the projects are not dead, but will not be continued until various conditions improve.

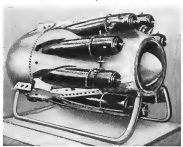
**Feeder Mileage**—Perhaps the most important condition that resulted in Boeing's action is the current total feeder mileage and expectations of what it will be when CAB completes action on the

acts cases. Before the Board began issuing decisions on the area proceedings, some manufacturers anticipated regional mileage totaling as high as 68,000. However, with five of eleven feeder cases announced, mileage is 11,738, and anticipated total routes about 30,000.

In re-examining the feeder market, Boeing decided that it would require 60 417s to serve the entire expected feeder system. It calculated it could sell another 200 planes in the export market. But with a planned schedule of 22 Model 417s per month, the company would wipe out its market in about one year. For that small a sale, the unit price would be greater than it was considered the feeder lines could pay in consideration of their three-year operating certificate.

Despite more than a year of work, and an investment of approximately \$1,000,000, Boeing therefore had the 417 on the shelf.

**Tax Influence**—There is some speculation that the company's action was influenced by tax laws. This is the last year in which industry will be able to claim excess profit tax refunds on its wartime



### FRENCH TURBO JET:

From a design begun in 1935, and continued during 1940-43 "under cover," French firm of Suresne has produced the prototype of its A-45 gas turbine. Nine combustion chambers grouped around the axial compressor ring are of reverse flow type feeding rearward into a combustion turbine. Compressor has four low and 12 high pressure stages. Part of the air from the low pressure stages is bled off to heat pipes at a point level with one behind the turbine's compressor. It is recycled for after-burning. Static thrust at sea level and 5,500 rpm is 1,260 lb., with after-burning, 1,545 lb. Weight, 2,545 lb. "Flight" photo.



grams. By suspending the 417 project now, Boeing will be able to charge the government against R&D refunds this year.

The company's over-all picture is not greatly affected by its decision regarding the 417. It has a backlog of nearly \$100,000,000 consisting of AAF orders for the B-50 bomber, C-97 transport and L-15 a new liaison craft.

Currently, it is proceeding with the Stratuscar and Skybush freighter, civilian versions of the C-87. Although the immediate effect of the 417 suspension at Wichita was the layoff of about 600 employees, substantially work on the B-50, and construction of the L-15 there will later call for the re-employment of these, plus the hiring of others.

Representatives of feeder lines feel that Boeing has underestimated the potential market and that the 66 planes in which the company figured in the bare minimum necessary even if there is no expansion of already-authorized feeder routes. These spokesmen, however, are confident that there will be such extensions granted by the Board. They also point to the possibility that once the feeder system begins operation traffic will grow beyond original estimates.

## Cessna Using Moving Assembly

Cessna Aircraft Co. which has reached a production rate of one plane every 15 minutes of its work day, at 40 planes a day, has installed a conveyor built system of

assembly which officials report has cut production costs by approximately 50 percent.

There are 26 stations along each conveyor belt. To begin the operation, a station fuselage is lifted out of the master jig by an electric hoist, transported by overhead trolley to one of the lines and lowered onto a conveyor belt. Moving from station to station every 36 minutes by means of the power-driven belt, the station comes off the line complete with the exception of propeller and some instruments. The prop is left off as a safety measure and the dual-controlled instrument panel is not attached until the plane is in the hangar in order to eliminate possible damage to the delicate instruments.

All power coming off the conveyor line are installed models with special equipment being installed in the hangar. Two men work at most stations and the work is so scheduled that each man can complete his job in 30 minutes. Work benches and holding racks designed to contain various parts that go into the airplane at one particular station are at each station's side.

Another advantage is that the arrangement reduces the number of scratches and dents on the planes and results in better appearing products.

When it is time to move planes forward, a vehicle is mounted and a button pushed which causes the planes to glide from one position to the next. The company has ordered an automatic time clock for the conveyors which will make the belt movement automatic.



**Two on Shop:** Right two-places Cessna are shown in various stages of completion along one of the conveyor-belt assembly lines which have been installed in the Wichita plant.

Cessna expects to be in production immediately on the Model 180, a four-place, slip-wing metal plane which will be competitive in the executive transport field.

The company closed its assembly lines from December 8 through 13 for reorganization and rebuilding. The plant reopened December 16 at its 30-plane-a-day production rate on the 180 and 160 models, in addition getting ready for the 190. Cessna now employs 1,500 persons, more than were employed on V-J Day.

## Fairchild Affiliates Gets \$2,000,000 Martin Job

Fairchild Engine & Airplane Corp.'s affiliated Sells Corp. has been awarded a \$2,000,000 contract to install pressurization and air conditioning equipment on 375 Martin 300 transports. It is asserted to be the largest contract ever written for air conditioning of commercial planes.

The Sells system utilizes magnesium alloys and has a total weight of 175 lb. It operates automatically and provides sea level atmosphere in the cabin up to 10,000 ft. altitude. At higher levels up to 24,000 ft., it maintains pressure equivalent to an altitude of 8,000 ft.

## Edo Building Two New Floats

By use of special tooling and by simplification of manufacture, Edo Aircraft Corp. is achieving mass production on two new helicopter floats with a substantial reduction in the selling price.

Man-hours on the new types—Model 3900 for the Piper Super-Cubster, and Model 1650 for Cessna 120 and 148—have been nearly cut in half by building the floats in four interchangeable parts. Engineering improvements have trimmed about 30 lb. off these models as compared to previous floats. The Model 3900 now sells for \$1,350 as against \$1,595 for its predecessor Model 1800, and the Model 1650 costs \$1,225. The former price was \$1,175.

With an eye both on maintenance and ease of manufacture, Edo builds each component in a precision jig to provide interchangeability and the wide-angle V-bushing is formed at that station. Formerly, the bottom of the floats were specially-drawn aluminum



**Internal Design:** Loading strength and safety are the over-all goals in Edo plans, construction of which is shown here.

sheets with compound curves. The new float uses stock aluminum. Bottoms may be replaced by repair stations without any shaping or forming problems.

Another improvement making for easier maintenance is the fact which is obtained completely from the outside. It can be removed without disassembling the float. Bow bumpers are bolted on and can be readily replaced as the floats are accessible through the forward hand hole. The hand hole covers are an innovation, locking with a half turn of the locking key.

Enabling faster installation or replacement is the redesigned strut. Semi-rigidizer struts eliminate the need for a spreader bar and bracing wires, giving a cleaner arrangement and reducing the number of parts.

## Lean on Missiles

Lehr, Incorporated, Grand Rapids, Mich., announces it is engaged in development and production work on "several phases" of remotely controlled missiles for the armed services. This project ties in closely with Lehr's normal activities in aircraft communications and navigational controls.

## Serates Corp. Beaches

Serates Corp., Babylon, L. I. N. Y., manufacturer of aircraft pressurization and air conditioning equipment, has opened a branch office at 7564 Santa Monica Blvd., Los Angeles 46, Calif. Manager is Knutland Holten.

## Electronic Analyzer

A high speed electronic analyzer called the Hydroscope has been developed by Aeroquip Corp., Jackson, Mich., for checking pressure surges and other phenomena occurring in hydraulic systems.

Designed as a simple and efficient device for use by either test specialists in the electronic field, the Hydroscope is said to give constant results even when used by persons unfamiliar with electronic devices. It transmits output of the pressure pickup to vertical deflections on a cathode-ray oscilloscope, and can be furnished with attachments to permit photograph record of the curves traced on the screen of the cathode-ray tube. Interchangeable gauge plates



may be inserted in front of the screen to provide direct readings at standard gauge scales such as 0-500 psi per in or 0-500 psi per in.

Only two external connections are required—one to the pressure pickup and one to any standard 120 to 250 volt, 50 to 1,000 cycle power source.

The Hydroscope includes a direct coupled amplifier which is susceptible to low impedance disturbances down to unity to permit isolation and record of the absolute values of any transient. Output characteristics are flat up to frequencies of 20,000 cps.

Price of equipment is \$1,500.

## 'Chore Boy' Refueler

New airport servicing equipment is Buick Chore Boy refueler, being built by Buick Cos., Harvey, Ill., for airports and airlines. The refueler, which is powered by 7.2

## New Products



hp. mounted, 4-cylinder engine, is less than 5 ft. high and has capacity of 250 gal.

Weighing 2,500 lb. without fuel, refueler is set up to serve airlines with 40, 400, 600 and 800 gal. There is a hose reel compartment, control pumps, double doors and all safety features are said to be incorporated. Company claims new unit is very maneuverable, inexpensive to operate, and quite fast—it can be brought from plane to plane on all parts of an airport in a few minutes.

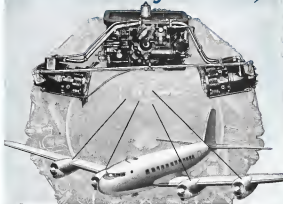
## New Radio Receiver

Ready for delivery, the Ranger Model 128 receiver, made by Electronic Specialty Co., Los Angeles, features long range reception of the broadcast band, as well as radio range stations and airport control towers. Set is designed for both speaker and headphone operation. Frequency coverage is 190 to 410 kilocycles and 940 to 1,550 kilocycles.

Holding the Ranger 128 receiver recently announced by the company, the two units provide two-way radio communication, using same antenna through convenient switch-over relay. Weight of receiver is 3 lb. 11 oz. Dimensions: 3 1/4 x 4 1/4 x 4 1/4 in.



## Announcing The Bendix



### A New Bendix-Developed fuel feed system which injects gasoline directly into each engine cylinder

#### **Reduces fire hazard**

... the intake passages carry air only—not an explosive mixture.

#### **Enables starting low back-firing shorter warm-up period**

... each cylinder instantly receives correct fuel charge; no manifold condensation.

#### **No icing from fuel vaporization**

... the fuel is vaporized within the engine cylinder, no "injection" of visible manifold or carburetor.

#### **More pay load, or more income per gallon**

... lesser mixtures can be used, fuel distribution is nearly equal.

#### **Less maintenance, only longer engine life**

... equal fuel distribution means less vibration—smoother operation.

#### **Greater passenger comfort**

... a smoother operating engine means less noise and vibration.

#### **Better altitude performance**

... comparatively unobstructed intake passage means higher volumetric efficiency.

#### **More engine power... better engine acceleration...**

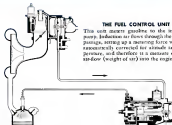
... even cooling of all cylinders, requiring less valve flap opening, then reducing drag.

#### **No engine stalls or faltering**

... fuel flow not affected by gusts or inertia allows to climb, bank or dive.



## Direct Fuel Injection System!



#### **THE FUEL CONTROL UNIT**

This unit meters gasoline to the injection pump. Induction air flows through the venturi passage, setting up a suction force which is automatically corrected for altitude and temperature, and therefore it is a measure of mass air-flow (weight of air) into the engine.

#### **THE DISCHARGE NOZZLE**

The measured charge of fuel is sprayed into each engine cylinder through a discharge nozzle. The discharge nozzle has a spring loaded valve and spiral fuel passage to insure uniform diffusion of thorough atomized fuel, with a sharp, clean cut-off after each injection period.

#### **THE INJECTION PUMP**

The injection pump divides the measured quantity of fuel into exactly equal charges, one for each engine cylinder, then the pump forces one charge to each engine cylinder, timed for injection during the intake stroke.

One airline estimates that with Bendix Direct Fuel Injection their ships are saving up to six per cent on fuel. This means an increased pay load of about 900 pounds—or room for four additional passengers. Another airline expects to increase cruising speed 20 mph at high altitudes by using Bendix Direct Fuel Injection.

In addition to these remarkable advantages, it has been demonstrated that smoother engine operation and less vibration reduce maintenance cost. And of course less vibration and noise contribute immensely to passenger comfort.

An illustrated folder on the Bendix Direct Fuel Injection System will be sent upon request. Bendix Product Division, Bendix Aviation Corporation, South Bend, Ind.

**Bendix' creative engineering helps American aviation lead the world**



## SPECIAL AIR SERVICES

# Charge Certificated Airlines Are Unfit for Cargo Operations

California Eastern Airways sparks route bid by challenging record of presently-certificated carriers in freight field; cites high rates, lack of interest.

By CHARLES L. ADAMS

Dismissing an apprehension that certificated largely with the conservative tactics of other applicants, California Eastern Airways appeared its route bid in CAA's aircraft case with a bold challenge of the presently-certificated airlines' fitness to carry cargo.

California Eastern presented statistical studies compiled by Alvin P. Adams & Associates, aviation consultants, purporting to show that the certificated airlines have been flying cargo at a loss although charging much higher rates than the independent air freighters. Other data illustrated an apparent lack of interest by the airlines in airfreight work, according to contract and non-scheduled carriers recently forced a change of policy.



CESSNA IN AMBULANCE ROLE:

Fully equipped for the patient's needs and comfort, the Cessna 730 is the recently-extended three-plane fleet of Air Ambulance, Inc., Durham, N. C., and New York City. Planes are fitted with ambulance cot, resuscitator and inhalator, drugs and medical kit. Required flight time is covered as part of the service. Accommodations are provided for doctor, friend or relative. One of an increasing number of companies in the business, Air Ambulance has asked for a CAB certificate to operate in continental U. S. The application states that air borne services also would be offered.

less than 12 cents a ton mile and at a smaller ton mile deficit.

California Eastern estimates showed that in 1949 less than 5 percent of all revenue reported by the certificated domestic airlines came from carriage of property and that the bulk of this 5 percent represented air express moving at 70 cents a ton mile.

Last August, it was pointed out, Eastern Air Lines, one of the "Big Four," flew only 11,000 freight ton miles, one-fourth of the volume reported by California Eastern in the same period.

**Ravenous Business**—Eastern's air freight business in August was set at less than one-fifth of 1 percent of the carrier's overall traffic. Air freight potential by 1950 may reach 8.6 billion ton miles annually, yielding \$72,000,000, according to the Adams estimates. How much of this total is actually translated into business depends on an apprehension and initiative not shared by the airlines. By the certified airlines, the study emphasizes.

Testimony of Harry F. Butler, traffic manager of Merck & Co., Rahway, N. J., manufacturer and distributor of chemicals and drugs, was introduced to support CEA's contention that the airlines have been ineffective in the airfreight field. Butler said his company has been forced to seek service with California Eastern and finds the service superior to air express.

Testified, have selected Merck's air cargo business very infrequently. California Eastern officials later testified they had experienced very keen competition from National Skyway Freight Corp. (The Flying Tiger), Swift Airways and other certified airlines but little from scheduled airlines.

**Use C-46s**—Now operating coast-to-coast with C-46s and in the Pacific Northwest with a C-54, CEA expects to place its fourth C-54 in service Feb. 1. The Oakland-based contract carrier, in the red to date, hopes to begin showing profits about the same time.

From May 15, when operations started in Oct. 31, California Eastern flew 2,936,676 ton miles, airfreight about 600,000 ton miles in October. The carrier's present base of 123 cents a ton mile probably will be listed slightly early next year, reflecting a continuation of the industry-wide trend toward stiffening tariffs which began early this fall.

If continued, CEA hopes to fly 43,395,316 revenue ton miles at 45 percent load factor and a 12-cent base rate in 1950, using its C-54s (Aviation News, Nov. 15). Revenue ton miles in 1949 would rise to around 67,952,240 with an average of eight C-54s in operation at a 74 percent load factor.

Other industry developments:

**Air Freight Headlines**, Inc., has been selected in Chicago, N. J., as a subsidiary to serve cargo for independent airlines, contract and charter, in areas 10,000 and 100,000 ft. of flight, including all airlines, including Eastern. Carriers served by the company include American, Eastern, Airborne Freight, and Northwest Airlines. Commercial Air Transport, Pasadena Air Service, National Air Freight Corp., H. C. R. Air Transport and World Air Lines, other companies are expected to join the group shortly.

**East Port Flying Service**, Pasadena, Calif., is trying the community air service to serve this area, long and all part cargo within a 10-mile radius. Lack of a community air could service in the area required the decision to start the operation. Approved by the Federal Aviation Commission, the service is expected early next year to serve the area.

**Air Line, Lafayette, La.**, has applied for a CAB certificate in operation between New Orleans and Lafayette in a 10-mile radius. The service is expected to start in the near future.

**Midwest Airlines**, Mobile, expects to make a second CAB change from its current route, Mobile to New Orleans, beginning Dec. 21. The new route is expected to be a "one-stop" route from New Orleans to New York, via New York City, New York, and New York City.

**United Airlines**, Inc., Wells, Wash., plans to start Wells-Walla-Walla service in the near future. The service is expected to start in the near future.

**Air Charter Co.**, Denver, is starting its last route, which is a 10-mile radius of Denver, with a 10-mile radius of Denver, with a 10-mile radius of Denver.

**South, Inc.**, has begun service between Seattle, Wash. and Anchorage, Alaska, with a 10-mile radius.

**Aero Transport Corp.**, Tampa, Fla., owner of four light aircraft, has been selected for participation in freight service in the California area.

**Continental Airlines**, Houston, N. J., is expected to start service between New York and New York City, with a 10-mile radius.

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plan, it has applied for a CAB certificate to carry passengers and cargo between Dallas, Texas, and New York City, New York, via New York City, New York, and New York City.

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## CAB Blames Pilot In TLA Accident

Probable cause of Trans-Lake Airlines DC-3 crash near Elko, Nev., Sept. 5 was the pilot's action in continuing a landing approach after losing visual contact with the airport under conditions of poor visibility, a CAB accident report states.

A contributing factor was the pilot's unfamiliarity with the terrain in the immediate vicinity of the airport, the Board found. The investigation also disclosed that the original flight plan from Cheyenne to Reno (later changed for the Elko landing) was deficient in that the fuel record did not provide sufficient margin of safety.

Twenty-one persons, including the crew, were killed and one child survived when the plane crashed a short 24 miles southeast of the Elko field. Crashing at the take-off speed of 100 mph.

## Air Freight Recoded

Independent Airfreight Association's new members—Wells Air Service, U. S. Airlines, Slick Airways, National Skyway Freight Corp., and Flying Air Service—now 3,600,000 cargo ton miles in November up from 3,000,000 ton miles over October. Slick reported 7,951,239 ton miles, against 2,234,935 in October.



## VAN COMPANY USES CARCARRIER

Extensive of Knapley Van, Inc., 30-year-old Omaha trucking firm, into the air-freight field offers further proof that furniture and other household goods are legitimate long-haul "air cargoes." The firm has organized Knapley Air Lines to supplement its extensive storage and moving service. Charles Knapley, president of both companies, predicts that Knapley Air Lines service will increase rather than reduce his major freight business, Omaha Municipal Airport is the site of the coordinated air-warehouse moving operation shown above.

## FINANCIAL

### Airline 'Insiders' Sell Heavily, Current SEC Reports Reveal

Most selling took place before further sharp decline of markets in recent months.

Airline shares were sold heavily by "insiders" during September and October. This is revealed by current reports filed with the Securities and Exchange Commission. For the most part, such selling took place before the further abrupt decline of the markets in recent months.

**FCA Director Sells**—Some significant selling took place in the securities of FCA. Armand G. Ertl, director of the airline, sold his entire holdings of 29,048 of 4% percent debentures. Ertl's banking firm, C. M. Loch, Rhodes & Co., also sold their entire block of \$1,590 in debentures. This liquidation took place while the bids were being paid (110) at above. Shortly thereafter, the price of the debentures broke sharply and declined to a level of 54 1/2. Ertl also sold a total of 1,830 shares of FCA common stock, mostly in September, retaining only 130.

C. M. Loch, Rhodes & Co., and Wane, Wild & Co., have been the investment bankers for FCA and are prominent on the airline's board. The latter banking firm has also been a consistent seller of FCA securities and at better prices. In financial circles, it is generally known when bankers sell the securities of their sponsored firm, which hardly engenders investment support. With FCA now confronted with an acute financing problem, it will be interesting to observe the public reception accorded any new security flotation of the airline.

**American Options**—During September, 1946, C. R. Smith disposed of 25,000 of his 250,000 options on common stock of American Airlines. These options are exercisable at \$1.90 per share. With the price of the common below \$10 per share, these options are currently without value. However, with any appreciation in the market, these options will assume

Recent North Flight		
Significant sales by airline officials	Shares	Approximate value
Alfred A. Brown	1,000	5,000
Robert E. Brown	1,000	5,000
C. M. Loch	1,000	5,000
C. M. Loch, Rhodes & Co.	1,000	5,000
Wane, Wild & Co.	1,000	5,000
Significant sales by airline officials		
C. M. Loch, Rhodes & Co.	1,000	5,000
Wane, Wild & Co.	1,000	5,000
Alfred A. Brown	1,000	5,000
Robert E. Brown	1,000	5,000

value increased to the holder if and when assumed as favorable for the airline.

Other significant sales among airline officials for October (among others) are shown in the accompanying table.

Upon being elected a director of National Airlines, it was revealed that Joseph A. Thomas owned 2,000, and his banking firm, Lehman Brothers, owned 3,500 shares of the airline common stock. Similarly, Howard A. Prior was revealed as owning 1,000 shares of Piper Aircraft.

### Survey Appraises Industry Outlook

The aircraft manufacturing industry has attracted considerable attention in surveys currently being released by investment firms. It is an industry, "Post War Prospects For Eighteen Countries," Harbawer & Weeks attempts to appraise the industry's outlook.

This report declares that most companies should break-even or even, with only small losses for 1946, after application of tax credits.

Earnings prospects for 1947 appear encouraging. Later reported unfilled orders are for \$1,200 million with a value of about \$1.2 billion. With reconversion expenses charged off and new models in production, results should show notable improvement over those to be reported for 1946.

**Working Capital Increased**—The strengthening of financial positions is highlighted by the increase in net working capital for eighteen companies from \$78.4 million at the end of 1945 to \$103.5 million in their latest published balance sheets. This investment firm believes that these stocks have over-discounted the unfavorable factors which are common knowledge. Almost every airplane stock is available at a substantial discount from its equity in net working capital. Harbawer & Weeks believes that such companies as Boeing, Cessna, Douglas, Grumman, Lockheed, Martin, North American, and United Aircraft should maintain discount positions.

**Backlog of 15,000 Planes**—Value of 1948 production is estimated at \$750-\$800 million. Unfilled orders on Oct. 1, 1946 were reported at \$1,585 airplanes with a value of \$1.2 billion so that 1947 deliveries may approximate \$750 million, according to the survey which uses the CAA's "Civil Aviation and the National Economy" as its source.

Production of military aircraft for the armed services is expected to be the mainstay of the airplane manufacturing industry. The demand for commercial transports is expected to be well maintained. It is estimated that at the \$750 million value of total airplane deliveries for 1946, \$125 million will represent commercial sales. Unfilled airline orders are placed at approximately \$125 million.

Harbawer & Weeks, however, do not appear to fully discount the cancellations that have taken place. The survey expects that the increasing volume of foreign business being looked will help offset the loss of domestic sales.

**Forecasting Developments**—Among the interesting developments which add great promise to the industry are: (1) increases in production of jet engines and jet airplanes; (2) improvement in jet and gas turbines; (3) entrance of some military aircraft makers into the personal plane field; (4) replacement in helicopter; and (5) diversification of activities into non-aeronautical fields.

## History DOES Repeat Itself . . . AND SANTA CLAUS IS THE FELLOW WHO REPEATS IT!



Old Santa needs only one day a year, but it's a mighty big job he tackles every Christmas Eve! Things could be a lot easier for the jolly old fellow, though, if he'd put his reindeer out to pasture and made that design for a new transport plane. This Douglas C-74 Globemaster, for example, with its 30-ton payload and 300-mile-an-hour speed, could make old Nick's Christmas job a snap!



### THE OHIO SCRAMBLE TURBO COMPANY



SALES OFFICES: Chicago & Illinois, 20 North Wacker Bldg., Cleveland 14, Ohio, 1218 Grand Blvd., Detroit 1, Michigan, 2807 E. Grand Blvd., Houston 1, Texas, 917 N. W. Bldg., Los Angeles 44, Calif., 1000 17th St., Newark 2, New Jersey, 1717 17th Avenue Bldg., New York 37, New York, 70 East 42nd Street, Philadelphia 6, Pa., 1713 S. Broad St., St. Louis 8, Missouri, 1228 North 3rd St., Seattle, Washington, 1111 Sixth Floor, Syracuse, New York, 506 Union Ave., Tulsa 3, Oklahoma, Building Division & Equipment Co., 4001 Ten N. 4th St., Minneapolis 1, Minnesota, Building & Power Engineering Co., Ltd., 1000 Broadway, New York 10, New York, 1000 Broadway, New York 10, New York.

Plant and Main Office  
SHELBY, OHIO

## FIXED BASE OPERATIONS

AIRPORTS PRIVATE FLYING SCHOOLS

# ADMA Convention Indicates Big Sales Campaign Underway

Members and speakers at Chicago meeting of Aviation Distributors & Manufacturers Association show aggressive attitude; CAA plan to let industry present parts standards

By ALEXANDER MURPHY

Aggressive attitude displayed by members and speakers at last week's Aviation Distributors and Manufacturers Association convention in Chicago, indicates that a vigorous sales campaign is now underway to offset the recent slump in personal aircraft sales.

Spiced with comments from several individual distributors and manufacturers that their sales in southern areas, were not slackening but that business was receding, discussions on and off the convention floor offered new substantiation for the contention that the slump is at least a great part seasonal, and that early 1963 will again see sizable national volume of aircraft sales.

**1960 Production Record**—John W. Friedlander, president of Aerospace Aircraft Corp., and chairman of the Personal Aircraft Corp., estimated that the 1960 production of personal aircraft will be approximately 42,000 planes about

five times the production of the last pre-war year. He urged concentration of plane sales effort in the agricultural, industrial and commercial areas, as a basis of uniform transportation, not as a rich man's hobby or a sportsman's toy.

Realistic judgment in ultimate distribution of supplies, to individuals and companies financially able to maintain them and to use them profitably, is called for.

"If we find there is no logical reason for a person to have an aircraft let us be held enough to tell him so. This of course may result in the loss of an immediate sale but in the long run it will save a great many headaches," Friedlander advised.

He asked for re-evaluation of the term "mass market," pointing out that on present sales volume of 100,000 planes in a few years would be a mass market in the aircraft industry, although far

## ADMA Elections

A. J. Westerland, head of the Westerland Co., Cleveland, was elected president of the Aviation Distributors and Manufacturers Association last week, succeeding W. P. Scott, Jr., head of Buehly Division Inc., Baltimore, Md., who has since advisory board chairman. Vice presidents elected were Robert Kirby, Air Associates, Teaneck, N. J., and A. R. H. Perkins, Lussan & Sweeney Co., Cleveland.

Other board members named are: Robert Dinkler, Dinkler Aircraft, Philadelphia, N. J.; Art Wheeler, Portland, Ore.; J. J. Montgomery, Packard Cable Division, General Motors Corp., Detroit; A. W. Becker, Good Year Tire & Rubber Co., Akron; Harold F. Wood, Aero Service & Supply, Birmingham; E. G. Bussard, of W. Harris Transportation, Inc., New York; E. G. Tyndal, Electric Storage Battery Co., Hialeah, Fla.; and Duane Strombach, Champion South West Co., Toledo. George A. Pinsky and H. Donald Hahn, both of Chicago, were confined in office as executive secretary and secretary respectively.

member than the annual sales volume of refrigerators, radios, cars, etc.

**Committee Formed**—Hosted discussions growing out of CAA's plan to issue technical standards order governing approval of aircraft component parts, resulted in unanimous vote for appointment of an ADMA committee, headed by Ray Seigler, of Snyder Aircraft Corp., Chicago, to confer with CAA and with the Aircraft Industry Administration, on the proposed rules.

**CAA Plan**—A. A. Veltmeier, CAA engineer, Washington, outlined the plan proposed to let industry technical committees present standards for the various components which would be adopted by CAA as technical orders governing their approval. The plan would include use of Army-Navy standards, SAE ratings, and other accepted standards and would only affect such components as have a direct bearing on safety. The components will be approved without inspection, on guarantee of warranty by the manufacturer, said Veltmeier. He said the standards, and it will be necessary for him to provide identification in

the form of nameplate, stencil, etc., to indicate compliance.

"I wonder where the automobile industry would be, today, if it had been beset from the start by CAA," asked ADMA President W. P. Scott, Jr., in the discussion. "Suppose CAA had to approve steering knuckles and everything else as ours, pertaining to safety."

**Industry Questionnaire**—A questionnaire sent to aviation manufacturers, on whether their distributors should take on engineering lines or handle exclusive lines was presented by Richard N. Demberger, Sennrich Brothers (pre-jets), Lancaster, Pa. On a basis of 23 replies, sentiment appeared well divided. Comments appeared that while the ideal situation from the manufacturers' viewpoint would probably be for exclusive representation, volume of sales and components and economies is not yet large enough in many cases to make this practicable.

G. B. Van Dusen, of Van Dusen Aircraft Supplies Inc., Minneapolis, touched another aspect of the sales volume question, with the statement "We will need 20 times expansion of aircraft sales before the supply house can handle a profitable operation selling only to its dealers."

Warning to the distributors that failure to stock sufficiently large inventories to serve their territory adequately, would eventually result in factory service branches or additional distributors in their territories, was sounded by E. F. Stevenson, of Stevenson Products, who cited comparable case histories of distribution of automotive parts, bearing out this contention.

George W. Johnson, II, of Southwest Associates, Dallas, urged the need for more cooperative consultation between manufacturers and distributors on policies affecting both. He stressed, under appointments, public relations and advertising in the distributors' territory, all should be matters in which the distributors' opinion should be considered.

## Oregon Suit Will Test State Registration Fee

Suit to test constitutionality of the Oregon state registration of aircraft and \$10 annual registration fee, has been filed at Salem, by John Hughes, with H. J. Salzer, Air Service, Hughes Aircraft Corporation, Portland. The State



## MONO-T HANGAR:

Monot-hangar construction is used in the new maintenance Mono-T hangar for personal planes designed by Unit Fabricators Co. Los Angeles. According to design specs for a 20-ft. unit, structure occupies 200 sq. ft., is 9 ft. 6 in. high, 20 ft. 2 in. deep, and 4 ft. 11 in. wide at front. Price of factory is \$21,000. Air Service, Hughes Aircraft Co., engineer designed the hangar.

Board of Aeronautics and Leo G. Devney, director, down enforcing the registration law. He has refused to pay the fee on the 12 planes used in his flying school, and the state board has ordered legal action against him, to enforce the registration law.

Hughes contends that restriction of his airplanes with the Federal Civil Aeronautics Administration, and issuance of CAA certificates, operating records and bills of sale, places his airplanes outside the registration jurisdiction of the state.

## Wisconsin Rejects Small Flight Schools

Efforts of the Wisconsin Aeronautic Commission to obtain approval for small flight schools to qualify for veterans' flight training under the GI Bill of Rights, were rejected by the governor's Advisory Educational Committee at a Madison meeting. The committee directed that only schools complying with CAA approved standards be qualified.

Howard Morry, Association Commission chairman, had urged relaxing of the requirements, asserting that the proposed plan requirements called for by CAA did not affect the plan's training and are economically responsible of attainment by the smaller operators. Morry then asked that the Commission be exempted from passing on qualifications of its own standards were not acceptable. "We are just a rubber stamp for

CAA under the present situation and we catch all the slack."

The Governor's Committee set for Jan. 7 an inquiry on whether flight instruction for veterans is a vocational program for veterans in the spirit and intent of the law. Harry A. Nelson, chief, Wisconsin Rehabilitation and Education Division, Veterans' Administration, Milwaukee, told the Committee employment is estimated for only 25,000 pilots as compared with 584,000 already discharged from the AAF, and said Gen. Omar Bradley, Veterans' Administrator, had expressed the view that Congress had not intended to give training in "hobby" subjects.

## Montana Air Group Asks for More Fields

Major emphasis on a campaign for more airports in Montana marked the annual convention of Montana Aviation Association at Helena. Delegates were told the state has been missing many flying targets because of inadequate landing facilities. Delegates were urged to improve on their local county governments the need for additional landing fields.

Complete as marking of the state and development of feeder airlines is urged, not served by main artery routes was asked.

Gordon C. Sands, Marv, was elected president, after officers Roy Midgett, Miles City, first vice-president, Curt Nadler, Helena, second vice-president, William Ferguson, Helena, secretary-treasurer.



## NEW SNYDER AIRCRAFT HOME

Snyder Aircraft Corp., engine, parts and airplane distributors, recently occupied the new sales and stock room at 2215 W. 32nd St., Chicago, at Montrose Airport. The building also contains the company's general office. A new larger housing Snyder's inventory, economy and engine overhaul shops, is being completed across the street from the sales building. Several is designed for fast and efficient handling of customers' orders. Other Snyder distribution centers are at Columbus, Ohio, Omaha, Neb. and Denver.

*Airline Operators!*  
Check These Important Facts About the  
**MARTIN 2-0-2 CARGO PLANE**

- [illegible]

Building of the model  Street View API

THE GLENN L. MARTIN COMPANY, BALTIMORE 3, MD

## Western States Object To Federal Airport Aid

A long-unheeded objection to the Federal-Aid Airport Act has come to the surface at a meeting in San Francisco of officials of 13 Western states. They went on record opposing any plan that permits the Federal Government to bypass states and deal directly with cities in allocating funds.

This involves a dispute that raged prior to the passage of the act. One draft of the airport bill provided for a state airport commission through which would be channelled all applications from that state. This, however, was killed and the act merely merely provides that no subdivision of a state can deal with the Federal Government in construction of a state law.

Acting to plug what they feel is a fault in the airport act, some states already are moving to enact such specific provisions. Wyoming, apparently, is the first. A development of this trend would lead to state airport commissions similar to state highway agencies.

### Markham New President Of Connecticut Operators

Ernest L. Merham, Meriden, Conn., was elected president of the newly organized Connecticut Airport Operators Association, at a meeting at Bristol. Adoption of a constitution and affiliation with the National Aviation Trades Association will be considered at the next meeting, Jan. 8, also at Bristol. Other officers elected: Peter J. Rinaldi, Plainfield, vice-president; Robert H. Halpin, Bethany, secretary-treasurer.



## NEW NORWEGIAN PLANTS:

A three-phase highwing monoplane, the Norge B, was built secretly in Norway, during the German occupation, by an Oslo designer, Axel Krutstuen, and it was being used for charter and taxi flying. Powered with a 145 hp. Warner Super Sirocco engine, the plane has 325 ft. wingspan, and is 30 ft. 10 in. long. Cruising and taxi

### Shobe is New Chief of Southern Air Firm

**Reorganization of Southern Air Services, Michigan**

**N. R. Khatke**

and chairman of N. R. "Cy" Shabo, World War II Navy aviator, as president and partner in the company, has been announced by William R. Kent, founder of the company in 1949, Cleveland.

of the firm will continue in the Kent family, and Kent will again take an active part in the management.

Claude J. Wood, sales manager, has been advanced to vice-president, and continues in charge of sales. J. F. Lanier, with the company 18 years, is secretary, and Lloyd C. Christie, flight director, and Allan R. Madden, service director, are leaving the company.

Shadeboro has held a commercial pilot's license since 1935, said the compressed campaign was planning an aggressive sales program and considerable expansion of service facilities.

Southern Air Services is distributor in the mid-south for Piper, Beech and Republic planes, Bendix radars, Continental, Franklin and Lycoming engines and parts, Esso fuel and oil, Firestone aviation supplies and other accessories. Its operational base is Sanders Field near Walls, Miss., 16 miles south of Memphis.

### Phing Farmers

Another indication that the farmers are probably the best prospects for farmers for purposes of some type of organization, except that position for some time to come, is the announcement of a meeting to form a Pennsylvania chapter of the Flying Farmers Association, at Harrisburg, Pa., Airport, Jan. 18. William L. Anderson, Pennsylvania Association director, himself a farm owner and pilot, is meeting in the plane. Apparently the charter members have not asked they would attend.

### Gliding Service Shifts Base for Winter Flights

Gliding & Soaring Service, Inc., has closed Ellenville (N. Y.) Glider Airport after a successful summer season, to open winter school quarters at Sanford (Fla.) Airport, after Christmas.

Sealplanes will continue available to experienced glider pilots during the winter, however at Massie (Long Island) Airport, and gliding instruction will be resumed in April both at Massie and Glenville. The Sanford field, a former Navy base with 1,560-acres, is operated by R. H. Brown and Henry Robinson, and was chosen because of excellent meteorological conditions in the area for seaplane flights.

Stephen J. Borcia is president of Gliding & Soaring Service, and Mrs. Borcia, who holds the U. S. women's distance record for sailplanes is secretary. Frank Sorenson is assisting them as instructor at the Florida school.



speeds are 109 and 125 mph and range with present fuel tank is 300 mph with three persons and baggage. Double tube fuselage structure is covered by aluminum sheet to a point behind cabin. Wind structure wing and remainder of fuselage are fabric covered. Plans, shown in sketch and also version, is adaptable for floats.

## New Operators Enter Business

Incorporation and establishment of seven new service operations has been announced.

**Aircraft Instruments & Radio Corp.**, 53 Penn. Ave., has been incorporated by **Ernest R. Deppin Jr.**, **Spencer Tinsman** and **Charles Wilford** with \$6,000 authorized capital stock.

**P. A. E. Corvet Corp.**, Penn. Ave., N. Y., has been chartered by the Secretary of State, with \$10,000 capital, to deal in airplanes, auto-radios and machines. Directors and stock subscribers are **E. A. Corvet**, **Louise R. Corvet**, **Leslie A. Corvet**.

**Walden-Gibson Aircraft Agency**, Appleton, Wis., has been incorporated to deal in aircraft, parts, etc., by **William H. Gibson**, **Karl P. Baldwin**, and **Margaret Debraun**.

**Scott Aircraft Company**, Chicago, has been incorporated at 21 Penn. Ave. with \$25,000 authorized capital stock, by **W. H. Scott**, **J. C. Lear**, and **William J. B. Penner**.

**Aviation Properties, Inc.**, North Miami, Fla., has been chartered by the Secretary of State as an aircraft parts wholesaler with \$20,000 authorized capital stock. Incorporators are **Arthur C. Hyde**, **Leona Horton** and **Earl M. Hyde**.

**Southeastern Flying Service, Inc.**, has been incorporated by **Lawrence S. Wesson**, **Albert E. Crawford** and **Martin C. Gestel** with \$1,000 authorized capital stock.

**Peenac Airways, Inc.**, at Potomac City, Md., has been chartered with \$3,000 authorized capital stock, to operate an airfield. Incorporators: **P. W. Williams**, **A. Barrow**, **W. E. Rowell**, **C. D. Dean**, **John Mackinnon**.

**International Air Mail**  
Up 28 Percent in November

Reflecting the Nov. 1 rate shift, airmail dispatched showed increased 28.4 percent, or about 3,742,550 pieces, in November over October. The gain by continent:

South America, 22.8 percent; Europe, 30.3 percent; Africa, 64.1 percent; and New East and Asia, 47.5 percent.

Non-rail, domestic airmail volume in November remained practically the same as in October. Thus the sum of all, 46 million registered in October (first month of the 5-cent rate) was held.

## Briefing For Dealers and Distributors

**CULVER MODEL V-3**—Culver Aircraft Corp. of Wichita is no longer producing any airplanes pending a receiving of credits and stockholders early in January, but the company is getting set for a program of modification and the current model airplane by changing type and winging into Model V-3 which reportedly has a much closer landing speed and higher rate of climb than the present plane. While retaining its other good characteristics, it is reported Culver also is completing a transition to sell approximately 50 completed airplanes for distribution in Mexico. Reopening of the Culver dealer and distributor organization to get more widespread distribution is also in the offing. Indications are that the company will weather its present financial difficulties, and may re-emerge as its active competitor in the general plane market within a few months time.

**STRONG POSITION**—As the first half of the year draws to a close, manufacturers have advanced to a strong position among personal plane manufacturers with two-way sales which are standard equipment in the **Piper Super Cub**, the **Republic Super Cub**, **Stinson Voyager 106** and the **Belmont Crusier**. If, all airplanes in the three, to best-placed units which are expected to be the best-selling personal planes in 1945. A major factor in the **Hallmark's rapid rise** has been a design because which eliminates engine plumbing requirements. While **Boeing** is going to the head of the Super Crusier, it is at all, new coming of the **Boeing**, there remains a backlog of approximately 10,000 Super Crusier already delivered without radar which will require them.

**EQUIPMENT REPLACEMENTS**—Accessory manufacturers, and their distributors and dealers, are at the current shortage of demand for new airplanes in equipment to prepare for replacement requirements on aircraft now in service. Most owners of personal airplanes have been anxious to modernize them with new controllable propellers, radios, instruments, etc., but have been stymied by the pressure of replacement manufacturers with large orders for all the accessories that could be produced. Choice for aircraft owners looking for replacements soon reach brighter during the remainder of the winter months, after which seasonal sales in new aircraft sales is expected to diminish. But by that time accessory makers may have enough volume production to be able to meet both new aircraft and replacement demands.

**WISCONSIN AIRPORT MAP**—An up-to-date map and list of airports and operations in Wisconsin is now available. Through the Wisconsin State Aeronautics Commission, Madison, the first edition map, just issued, will be followed by corrected maps published every 48 days as a service to the industry and the flying public. The first map shows 135 landing facilities, including seaplane bases, in the state, and includes other data of use airman. As accompanying list of fields gives number of services, length of airport runway, facilities available, airport telephone number and other information of value to the transient flyer.

**CHEVROLET SALES FOUR**—A total of 46 hours, four minutes three tenths to cover nearly 18,000 miles in a national sales tour has been reported Chevrolet Motor Division, General Motors Corp. Using a converted Chrysler 3-25 executive transport, **Malcolm Dwyndell**, Chevrolet general manager, and **T. H. Kettling**, general sales manager, were able to conduct 32 meetings for nearly 3,000 dealers and wholesalers in 30 states from Boston to Fort Worth, and from Atlanta to Portland, Ore., in within three weeks time. The trip is another indication of the growing importance of executive planes in the modern business world and another sales argument for car companies which require considerable travel from their executive personnel.

**INDEPENDENTS VS. MANUFACTURERS**—Some large independent parts and accessories distributors, which handle a variety of auto, including in one case competing equipment, are looking forward into 1946 for a new set of three pieces in the aviation industry picture. The problem is created by efforts of several plane manufacturers to channel parts replacement through their own distributor dealers system, keeping the business within their own organization. One result is likely to be an intensification of sales effort by the big independent supply houses, and perhaps a greater diversification of equipment handled in order to meet better the needs of their customers, the hard hose operators. Entrance of **Frederick and Standard Oil (Aerial)** into the service equipment supply field, as another factor, is expected to have a big independent, who, generally, had the supply field almost to themselves. —Alexander McNeely

## TRANSPORT

### Post Office Expands 'Copter Mail Test Program at New York

Most ambitious trials to date will cover population area of 12,500,000 and include ship-to-shore service; set to begin Jan. 6.

Elated over earlier experiments at Los Angeles and Chicago, the Post Office Department will launch its most ambitious helicopter mail service test in the New York metropolitan area next month.

For two weeks to a month, ten or more helicopters provided by manufacturers and private interests—instead of the Army, as heretofore—will operate along three circular routes and two shuttle flights laid out by the Department in New York, New Jersey and Connecticut.

Ship-to-shore service is part of the plan, and will begin Jan. 6.

**Covered Routes**—Equipment will be furnished, it is understood, by **Helicopter Corp.**, **Boeing Aircraft Division of United Aircraft Corp.**, **Croydonland Lines**, and **Helicopter Air Transport, Inc.**

The "Circular" routes and shuttle flights total about 330 miles

and serve points with 12,500,000 population. While ship-to-shore post office shuttles were a feature of the previous tests, the New York trials will involve more extensive shuttle operations between three major airports in the area—LaGuardia, Newark and Floyd Bennett.

Flights over all three main routes probably will be made the first day, but thereafter they will be flown successively in order that some delivery may attain complete days on each.

**Three Loops**—Three suburban loops, as presently set up, touch 36 Post Offices within a radius of 30 miles of the New York General Post Office. The northern route (140 miles) embraces Westchester County, N. Y., and part of Putnam County, Conn.; the eastern route (25 miles) includes Nassau and part of Suffolk Counties and

Long Island, and the western route (108 miles) covers seven densely populated counties in northern New Jersey.

Route No. 1 is between LaGuardia Field and Newark Airport via intermediate stops (23 miles), and shuttle Route No. 2 is between LaGuardia and Floyd Bennett Field, with stops at Brooklyn and Long Island City.

Announcement of the New York tests closely followed a highly-favorable report issued by Post Office inspectors on the Chicago tests, conducted Oct. 1-18, with Sikorsky S-51B. Inspector M. H. Ackerman declared the experiment had shown that helicopter operations transporting mail to and from small towns having a metropolitan area such as Chicago as their trading point are both practicable and desirable.

The report estimated that in the Chicago area helicopter service could be maintained for 90.6 percent of the year due to the ability of the craft to fly in almost all kinds of weather. It added that flights at night had been found possible and that the results of the tests at Chicago tests, GAB has received four applications for helicopter service in the area. The New York experiment is expected to air new route tests there.

### Damon Attacks Pan American Case

Pan American Airways' bid for more than 12,000 miles of domestic routes came under intense criticism from the first of the "Big Four" carriers when Ralph S. Damon, president of American Airlines, asserted that the proposal would do his company a distressing financial harm.

Testimony at the CAB hearing on PAA's application for nonstop, high-speed service within the U. S. showed that certification of all the links requested by Pan American would "kill American" down from a \$24,000,000 profit to a loss of \$9,000,000 annually. "The estimate covered operations during the first year in which PAA and AA would be in competition directly with their full fleets of Republic B-47s."

If Pan American is permitted to skim the cream of domestic long-haul traffic it could offer a substantially larger loss than other airlines, whose value would be reduced less lavishly service to intermediate points, Damon said.



Varied in Helicopter Mail Test: Post Office Department's New York experiment in helicopter mail service will include ship-to-shore and intermediate shuttle services absent in previous tests at Los Angeles and Chicago. Way shown there in addition to three closed-loop routes similar to those tried out in the other areas.

Thus, when IATA considers a rate reasonable for its domestic operation, competing carriers would either be forced to the full financially or would require tremendous increases in mail pay. The AA executive stated:

Rebutting many of the sentiments expressed previously by top executives of Braniff, Western, Chicago & Southern and Delta, Darnes also attacked IATA's advertised flight rates for its proposed domestic routes. Pan American, he said, has claimed that its Rainbows will fly from Los Angeles to New York in 5 hr. 15 min. "This means a black-to-black speed of close to 300 miles an hour, and without the assistance of winds of hurricane velocity the Rainbow could never meet such a schedule."

## Clearing House Seeks Simplification

The Airlines Clearing House has adopted new procedures to simplify clearance of domestic interline ticket sales and is being given full participation in its international counterpart being set up by the International Air Transport Association.

Despite IATA's entry into the picture, the corporation formed by the airlines later in 1943 to handle domestic interline accounts will continue to function as it has in the past, it was stated at this month's annual meeting of the airlines finance and accounting conference at Miami.

**Faster Action.**—In the future, however, instead of waiting for the airlines to bill each other before settlements are made on interline ticket sales, the Clearing House will set up an express on such sales as is in the end of each month. Effective after Jan. 1, this will facilitate the settlement of accounts to clear the way for the next month's operation.

The Clearing House plans to settle the international balances of its members, regardless of what airline they are payable to, through a branch of the International Clearing House, probably in New York or Chicago. That agency, which will handle interline accounts on a world basis, was approved by IATA at its Cairo meeting nearly two months ago. It will begin operations in London by Jan. 1 and in the U. S. then or shortly thereafter. Monthly balances will be converted and settled in sterling or dollars, convertible in either case to national currencies regardless of exchange controls.

Delegates to the Miami conference sought without success to arrive at standards for backing down cost computation of interline operations. Difficulty lay in the variety of methods of conducting such work among different airlines.

**Revenue Up 40 Percent.**—The airline financial specialists,

acknowledging the domestic airline revenues for the fourth quarter of 1946 will be approximately 40 percent above the same period last year, declined to speculate on indicated net income to be realized from the increased revenues, assuming that operating costs likewise have been rising. Estimates were that 50 percent of the volume of business represented passenger traffic, but most estimates centered on air freight charges as a future source of heavy revenue. Algonquin Airways has increased about 40 percent under the new 5-cent postage rate, the group reported.

Airline trustees elected as conference officers for next year are L. B. Holstad, Northwest, president; L. B. Judd, Delta, first vice-president; and J. A. Uhl, Continental, second vice-president. F. G. Kelly of Air Transport Association is executive secretary.

## Joint CAA-CAB Group Will Make Decisions

Joint monthly meetings between the Civil Aeronautics Administration and Civil Aeronautics Board to discuss matters of mutual interest to both—mostly in the field of air regulation—take on new shape with the formation of a new CAA-CAB Committee which will make all decisions on those requiring formal CAB action.

Members are: T. P. Wright, CAA Administrator, chairman; Clarence M. Young, CAA member, co-chairman; A. S. Koch, Assistant Administrator, Staff Director, CAA; Wallace S. Dawson, director of CAA's Safety Bureau; R. P. Burke, Assistant General Counsel, CAA; and Merrill Arneson, Assistant General Counsel, CAB. John Marshall, CAA, is executive secretary.

Koch and Dawson routinely acknowledge to go into all items submitted for full committee consideration, avoiding the threat of avoiding delay in some cases, the subcommittee will decide a question, then report later to the committee. The two men will meet approximately every two weeks, the committee once a month. Staff members of the two agencies will be called in as needed to discuss subjects in their departments. At their first meeting early this month, Koch and Dawson discussed the Board's matter awaiting their attention.

Because of the close relations

between the work of the two agencies, those have been joint meetings since they were established, but many of them have not yet taken. Purpose of the new committee, a spokesman said, is to translate discussion into decisions.

## Monarch Will Begin New Mexico Service

Monarch Air Lines, Rocky Mountain leader, has received formal permission from the New Mexico Corporation Commission to operate in the state, enabling MAL to begin north-south runs from Salt Lake City to Albuquerque, possibly this week.

One flight daily each way is planned, with DC-3s leaving both Salt Lake City and Albuquerque in the morning. Plans call for connections at Albuquerque, Colo., with the daily Denver-Buffalo flight already operating. Stops will be made on the north-south route at Provo and Price, Utah; Grand Junction and Durango, Colo.; and Farmington, N. M.

Other new services:

**Orlando Airlines.**—Does after Jan. 1 expands to have passenger service available on its entire system (ALB 12). The Florida leader has begun mail and express service over part of its routes.

**Buffalo.**—Integrated passenger-cargo service to Union and Detroit via Detroit. D. S. Thompson of CAA, service to the Twin Falls-Douglas route of the Alaska originally scheduled the month this line postpaid temporarily. **Buffalo.**—Reports are that the Alaska route from the Twin Falls to Anchorage, Alaska, via the Cheyenne, Colo., Jan. 3. Three flights weekly are planned.

## CAB Affirms Pacific Route Case Decision

The Civil Aeronautics Board has affirmed, with one minor exception, its opinion in the Pacific route case decided last June. Petitions of PCA, Pacific Northern Airlines and Alaska Airlines for rehearing, reconsideration and reconsideration have been denied.

Northwest Airlines' certificate for the North Pacific route was awarded to Canada, Whitehead, Canada, as an intermediate point between Edmonton, Canada, and Anchorage, Alaska. CAB's supplemental opinion emphasized that need for another carrier operating between the U. S. and Canada to supplement the services of Pan American and Northwest has not yet been demonstrated.

## PCA Will Fly ATC Route to Germany

Government and military personnel and cargo will be carried between Los Angeles and Germany by PCA under a contract with Air Transport Command. Estimated 13 a 1 week. The operation between Washington and Frankfurt, via Bermuda, the Azores and Paris is expected to start shortly after the first of the year.

Seven round trips will be made each week. An alternate route will go through Newfoundland, but PCA, which inaugurated the first domestic scheduled military cargo service April 1, 1943, does not expect to use it.

ATC C-54s will be flown and scheduled by PCA over 30 of the two planes to be assigned to the route, which ATC has been operating, already have been received by the airline, which will have the operation in Washington. The carrier estimates that 40 to 50 pilots and co-pilots will be required. Charles J. Lowen Jr., former ATC major and assistant director of operations for the State of Colorado before he joined PCA last September, will be general manager.

The contract, amount of which was not disclosed, was awarded as a bid basis. It will run at least until the end of the fiscal year June 30, and probably will be renewed, inasmuch as ATC is admittedly short of trained personnel. ATC will award another contract for a Pacific route to Japan. Bids are being taken by the Air Materiel Command at Wright Field, which handles the contracts.

**Gift Tickets.**—At least five airlines and probably more are offering tickets as Christmas gift suggestions, through which they vainly call gift certificates, giving certificates, or merely travel order forms. American, Braniff, Delta, TWA and Western are doing so. Pan American reportedly refused because of passage of the other lines' requests, although American announced inclusion of tickets to Mexico, Canada or Europe.

## Fare Raise Talk

A 10 percent rise in airline fares that would bring them back to the 1940 level, prevailing from 1939 to 1943 is being discussed by the airlines, says Jack Frye of TWA and B. Bruce Moore of Eastern. A 50 percent extra charge for sleeper service probably would be made as it becomes available.

Extent of debate on the fare question, which has been widely publicized, is not clear, according to a spokesman for the Air Transport Association, airline trade organization. The matter also was discussed at the ATA meeting in Washington, but fare raises found only one or three champions and no industry action was taken, any close present. A delegate to the United Airlines Finance and Accounting Conference at Miami said it was not sure if the airlines have requested and pay increases, but doubt has been expressed that the move would be successful. A vote of wide confidence in the new Congress on air travel pool and in view of the recent reduction in airfare postage.

With cargo growing in volume and importance, the airlines may likely will extend the present system of ad valorem freight before concerted action is taken. Trends indicate that the airlines will not be willing to accept a new ad valorem system.

## Chicago & Southern Air Lines 272 From Domestic Staff

Chicago & Southern Air Lines, getting the airline economy trend has announced a personnel reduction of 271 in its domestic operations, saving about \$400,000 in monthly payroll. Some service reduction also is planned.

Domestic routes will go down to 121 in domestic and semi-domestic routes, in the Pacific department, and 20 in operations, including pilots and mechanics, at Memphis headquarters. Domesticals elsewhere will include the same categories.

The company, now flying ten from the airlines' largest, will last month before Pearl Harbor, experts to curtail flights north from Memphis after Jan. 1, withdrawing two DC-4s and a DC-3. A second round between New Orleans and Memphis will be added simultaneously.

C & S now has 21 daily flights



NEW PLANE AND OLD;

Extensive differences between the Douglas Douglas DC-3 and the new Monarch are shown here. The first line (American News, Dec. 2), shown at the bottom of the photo, is the Douglas DC-3, the first line at the bottom of the photo, is the Douglas DC-3, the first line at the bottom of the photo, is the Douglas DC-3.





## Soaking the Plane Owner

Assessments that fixed base operators plump excessive and unwarranted charges on their services to the aircraft owner have been flying as long as private flying has existed. J. B. Hartman, Jr., of the Aircraft Owners & Pilots Association enlisted the potential debate with a new blast at the Oklahoma City Clinic, and all of this talk—much of it irresponsible and unfounded—about a coming slump in personal flying has intensified the subject since the Clinic deliberations.

Any blanket denunciation of operators on this score is unwarranted. But as the News has indicated before, there is ample evidence that too many companies are still assessing prices as high as the traffic will bear.

Operators themselves seldom have spoken out against this practice. It's time they do. Clyde Brayton, president of Brayton Flying Service, Inc., of St. Louis, has done so. With commendable courage he has told the aviation press that he feels operators have taken a "full or miss attitude in making up bills on aircraft overhauls," for example. "The airport operator will do well to take a leaf from the automobile dealer and set up an estimate in advance of the cost of the job and proceed on that basis."

Mr. Brayton advances further that "many times it is necessary to make additional repairs. In such instances, the airport operator repair superintendent should discuss the additional repair with the customer by phone or in person so that no hard feelings develop. This takes time. But it is better to spend a few minutes with the owner in advance than make additional repairs and then tell the customer afterward.

"Repair depots should exercise good judgment in helping keep the flyer's cost to a minimum. Planes kept on the ground while the pilot earns additional money to pay off repair bills is not healthy for the business. When airplanes fly they

are customers for gasoline, oil, tires, props and supplies. Keep those planes flying and we will prosper. Sock the customer with heavy repair bills and we soon will be out of business."

National Aviation Trades Association or United Pilots & Mechanics Association could take no more constructive action for aviation than to energize a vigorous campaign to adopt uniform business practices such as those outlined by Mr. Brayton. The fixed base operations industry needs its own "Good Housekeeping" system with a seal of approval that will mean something to the harassed private owner.

## A Move Toward Harmony

Formation last week of a committee to improve the teamwork of the Civil Aeronautics Board and the Civil Aeronautics Administration in their common efforts is good news to aviation. The last Government reorganization act went into effect in 1940. They ended the independent status of the office of the Administrator of Civil Aeronautics and placed it under the Commerce Department. CAB retained its independence.

Since that time the relations of the most important aviation agencies, and aviation itself, have suffered from sub-surface friction and jealousies. Monthly meetings of certain representatives of both agencies have been held for some time but resulting action has been disappointing.

The new committee, however, comprises top-rank policy making executives of both agencies, with Administrator Wright as chairman, and CAB member Clarence Young as vice chairman. A valuable subcommittee of two comprises the top technical division heads of the two agencies.

The arrangement makes sense. Both CAB and CAA deserve a pat on the back for this short-circuiting of procedure and a sincere effort to attain cooperation for maximum public service.

ROBERT H. WOOD

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